Brothers Mike and Peter Dueppengiesser operate a 2,000 acre dairy farm in Wyoming County, milking over 1,000 cows and managing 20 full-time employees. But the Dueppengiessers are living proof that having more land doesn’t mean the farmers care any less about each acre of it.

The farm began when their father, Arnold Dueppengiesser, came to America from Germany in the early 1950s and took over his uncle’s farm in Clarence—until development pressure forced him to sell the farm and move in ’69. He found land in the town of Perry and eventually bought three parcels that the brothers now farm. Mike, the youngest of the five boys, always knew he wanted to be a farmer. “Dairy is demanding,” he says. “It’s all the time and that’s hard, but I can’t imagine myself doing anything else.” Mike and his brother Peter took the reins in 1990 and built the first free stall for their growing herd of Holsteins.

The expansion came with a learning curve for the brothers. Once they started bringing bigger trucks and equipment out onto the fields they began to notice compaction issues with the soil. At first, they thought the solution was to till the ground more rigorously to break it up, but that seemed to make it worse. “We saw a detrimental effect on the soil structure,” Mike says. “Corn with poor root development, lumps that you had a hard time working down in any way, shape or form.” Mike watched their corn simply fall over when it rained because their root systems weren’t developed. “Obviously that translated into huge yield losses,” he said.

The Dueppengiessers sought help from local experts, including Dave DeGoyler and the team at the Western New York Crop Management Association, who suggested that they try zone tilling. There weren’t many farmers in their area doing it at the time, but Mike was determined to improve the health of his soil so he took the plunge. Fortunately it worked. “We have seen our soils improve tremendously,” Mike says. “When I dig for seed depth, there isn’t a spot I can dig where you don’t cut into a worm.”

“Zone tilling is done with a zone builder, which only disturbs a narrow band of soil that the crop is planted into, enabling crop residue to remain on the field’s surface as mulch. The decreased disturbance is critical for maintaining the organic matter and biological activity needed for healthy soil. Reducing tillage intensity can help maintain or increase yields over time through improved soil function including nutrient uptake efficiency and water-holding capacity. Those benefits also lead to improved quality of ground and surface waters. This is especially important when farming in a place like the Great Lakes watershed. “The amazing thing about it is it seems like it’s a benefit in wet years and dry years,” Mike says. “Whether it’s water infiltration or water percolation..."
coming back through, it really seems to benefit.” Mike has been doing this for more than a decade and he’s learned a few lessons along the way. “Don’t zone till wet,” he laughs. “But really, we had some heavy ground and we did that. You get down there and you’re like, ‘Okay, looks fine on top, let’s go!’ Well, you take a shovel and dig down there and it’s paste.”

Mike also emphasizes the role of good management in helping these practices succeed. “You’ve got to be willing to watch things, manage things, keep your eye on what’s going on—and you’ve got to have people who are willing to buy into it,” Mike says. “If it gets too wet down there, you’ve got to get on the radio or phone and say, ‘This doesn’t look good.’ Don’t just keep going because you can.”

The Dueppengiessers have used cover crops on their fields since 1990, but it’s always a challenge to time the planting of the cover crop with the application of manure. They use cover crops on all of their highly erodible land, and more when time allows for it. “By the time we get the corn off, for us to get a good, established cover crop is hard because we go on it with manure,” Mike explains. “Timeliness—that’s the big thing. Trying to get where you’re not on these tiny little plants that you’re killing, or too late trying to get them on after the manure.”

They recently switched to a dragline system for their manure, which allows them to apply it faster and to wait a little longer to start spreading, giving the cover crops more time to take root. It’s also helped with their compaction issues. “When I saw the guys take a 30 ton spreader, drive all the way across to the back of the field after every single load, it just killed me,” Mike says. “For us, getting the dragline was really worth it with the compaction, plus just getting the manure out faster.”

Mike and Pete are always looking for opportunities to improve soil health and to learn from other farmers. Last year they were the site for the Western NY Soil Health Field Day, which included a demonstration plot of interseeded cover crops. “I’m encouraged on interseeding.” Mike says. “That’s something I’ve wanted to do in some way, shape or form, forever.” This would allow the Dueppengiessers to plant their cover crops between rows of standing crops, helping to ensure the cover crops establish before they spread manure and to fulfill their full benefits to the soil.

Events like the field day are important to Mike as he likes getting the chance to learn from other farmers. “You’ve got to talk to people,” he says. “These guys have lived it, been through it, and are willing to help you.” He’s saved himself from a few mistakes this way, and hopes that he can do the same for others. “It’s a great thing—we need to do more of that as farmers—but sometimes we get busy and we don’t.”

In addition to talking with farmers, Mike and Pete are firm believers in breaking bread with their neighbors and talking about what they’re doing on the farm. If someone is concerned with manure spreading, they start the conversation about their practices; how they balance nutrients, inject manure, and follow a nutrient management plan to prevent runoff. They believe it should be a proactive effort. “We should stop in and bring them some cheese or a bottle of wine,” Mike says. “I think it people know you care, and are decent people, it goes miles.”

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